THE

REGISTER OF PENNSYLVANIA.

DEVOTED TO THE PRESERVATION OF EVERY KIND OF USEFUL INFORMATION RESPECTING THE STATE.

EDITED BY SAMUEL HAZARD, NO. 51, FILBERT STREET.

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MINERALOGICAL NOTICES.

In the absence of a complete geological description of the State, which we hope soon to see accomplished; the only method which at present suggests itself to us, to obtain a knowledge of the various mineral treasures which so large a section of country must contain, is to collect the information, already possessed, from the various publications and numerous individuals who have turned their attention to the interesting and useful study of mineralogy. As a commencement on this subject, we publish from the second part of vol. 1. of the Journal of the Academy of Natural Sciences, (a work perhaps better known, in Europe than in this city where it is published) "an account of the minerals at present (1818) known to exist in the vicinity of Philadelphia by Isaac Lea." Since that account was published, many additions have no doubt been made to the catalogue' for the completion of which, we must appeal to some of our scientific friends.

It is desirable that a cabinet be, somewhere formed, in which a complete collection shall exist, of all the minerals found in the State; and we know of no place so suitable for this purpose as Harrisburg, the seat of government; and it ought to be a STATE CABINET—established by the legislature; a suitable scientific person should have the care of it, and as far as opportunity offers, devote a portion of his time to visiting the different sections of the State and collecting specimens and other information, which may in time be very useful in forming a geological map of the State. The great number of persons now employed on the different canals and other public works; and the various sections of the country, which in the prosecution of those works are explored, afford facilities to the legislature, for commencing a cabinet of which advantage should be taken, by enlisting the services of the engineers and of others employed, requesting or requiring them to pay attention to the subject, and forward to the cabinet whatever may be found worthy of preservation. Large contributions would no doubt be made by the citizens generally. Each county also might with advantage possess a county cabinet for the preservation of objects found within its bounds, which being within a short distance of every man's home, would enlist his feelings and interests in its favor, and the county would soon become thoroughly investigated. In our last volume, we furnished some account of an institution, established for this purpose in West Chester, whose example is worthy of imitation by other counties. In this city, the Academy of Natural Science, (whose journal we have noticed above) has existed for several years, and though not appreciated here as highly as it merits, is probably as well known in Europe, and has done as much, if not more, by its journal, to elevate the scientific character of our country abroad, as any other institution in the United States. In the various departments of natural science, it possesses a most extensive and valuable library. Its museum, is scientifically arranged, and its members are extremely devoted to the interests of the institution and of science. The building erected for the Swedenborgian congregation, was a few years since purchased by the academy, and fitted up for the reception of its library and museum, and we know of few objects in the city more worthy of a visit from strangers than this institution. At all meetings excepting on one evening of each month strangers may be present, when introduced by a member.

As a depository for the natural productions of the county, we would therefore recommend this institution. We have no doubt the Academy would gladly set apart a portion of their room for this special object, and render any assistance in the examination of the county, in their power.

It is a reflection upon the scientific character of our country, that we have no national museum or institute at the seat of government, similar to those which reflect so much credit on some of the European governments, and contribute so much to the amusement and instruction of strangers. The means for such an establishment are ample. The various public officers through the United States and those visiting foreign countries, might in a very short time, by their services and contributions, render such an institution very respectable and useful, especially if public lecturers were appointed at the expense of the government to instruct and enlighten those who would no doubt resort to Washington for the purpose of attending the lectures.

In the course of debate on the question of admitting iron free of duty for the use of rail roads; it was stated, that a sufficient quantity could not be produced in the United States for the purpose, within the time required. We would be glad to know the quantity which may be produced annually in this state, and we solicit information, from those engaged in the manufacture of iron or who live in the neighbourhood of iron works, respecting the quantity of different kinds manufactured, the name of the works or owners; the mines from which the ore is obtained; the number of persons engaged in this business; the prices at the works, &c. &c. and we will at some future period, furnish in this work as complete a list as we can obtain. The editors of newspapers throughout the state, would assist much by publishing this request in their papers and such information

as they possess respecting the works in their neighborhood and forwarding the paper containing it, to the editor of the Register of Pennsylvania at Philadelphia.

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An Account of the Minerals at present known to exist in the vicinity of Philadelphia. By ISAAC LEA.

METALS.

Blue Carbonate of Copper. Cuivre carbonate bleu. H.

This mineral occurs in minute crystals, and in very small quantities, of a beautiful dark blue colour, at the mines on Perkiomen creek, about twenty-two miles north of the city. It is found in veins; with lead and zinc, in the old red sandstone formation.

Green Carbonate of Copper. Cuivre carbonate vert. H. *Malachite.* W.

Occurs both radiated and botryoidal of an emerald green colour. Locality and geognosy same as the last species.

Red Oxide of Copper. Cuivre oxidule. H. *Ruby Copper.* W.

Beautiful capillary crystals, translucent and of a bright red colour, have been lately discovered by Messrs. J. Lukens and B. Say, at the same place with the two former specimens.

Copper Pyrites. Cuivre pyriteaux. H. *Yellow Copper.* Aiken.

It occurs in amorphous masses, of a brass yellow colour and often externally iridescent, at Perkiomen, and on Chester creek, near a saw mill, three miles west of Chester, in Delaware county. At the latter place it exists in quartz, accompanied with sulphuret of molybdena.

Magnetic Sulphuret of Iron. Fer sulphure ferrifere. H.

This mineral occurs amorphous, in the hornblende rocks near the engine at Morris hill, and in small quantities.

Magnetic Oxide of Iron. Fer oxidule. H. *Magnetic Iron Ore.* W.

We find this on the Schuylkill in small quantities, of a dark iron black, and possessing a slight metallic appearance. It is strongly attracted by the magnet. A variety, known by the name of octaedral iron, should be mentioned here. It is crystalized in regular octaedrons from one sixteenth to one half of an inch in diameter. Some of these crystals divided parallel to either face, and transposed or partly turned round, form macles of triangular formed tables, with their three sides bevelled, each end being replaced with two faces inclined towards each other. It occurs in large quantities in the talc rocks of Chestnuthill, immediately on the Wichicon creek, eastern side, ten miles from the city.

Sulphuret of Iron. Iron Pyrites. W. *Fer sulphure.* H.

In our hornblende rocks we find this mineral, generally disseminated, but sometimes in the form of cubes. It occurs also, at the mine near Chester, and at Perkiomen lead mines, crystallized in various forms, and frequently tarnished so as to present the appearance of other metals.

Brown Oxide of Iron. Hematite. W. *Fer oxide Hematite.* H.

This species of iron ore is found at Upper Dublin, about fifteen miles north of the city. It frequently occurs in geodes, the interior sides of which are perfectly black, and of a botryoidal, mammillary or corralloidal form: sometimes the cavity contains sand. Its construction proves it to be concretion. Some specimens have also been found on the Schuylkill.

Scaly red Oxide of Iron. Red Iron Froth. W. *Fer oligiste luisant.* H.

At the lead mines on the Perkiomen we find fine specimens of this mineral. It occurs there in scaly particles of a nearly cherry red colour, soft to the touch, and soils. It is taken out of the vein with the lead, generally incrusting some other mineral.

Foliated Iron Ore.

The iron ore known by this name here, frequently occurs in quartz rocks, seldom thicker than the eighth of an inch, and appears to be a black oxide of iron. It is found at Chestnuthill and on the Wichicon.

Jaspery Iron Ore.

It occurs massive, in considerable quantities, in the road near Springmills. Its fracture is flat conchoidal, colour brownish.

Argillaceous Iron Ore.

This species occurs in large quantities near Burlington. Its colour is yellowish brown, and earthy, being entirely loose. It is valued here highly as an ore, and carried to the lower part of the state, where other ores are plenty.

Bog Iron Ore.

This species of ore is found abundantly in New Jersey, where it is wrought in great quantities.

Hydrat of Iron. Blue Iron earth. W. *Fer Phosphate.* H.

This mineral occurs crystallized and massive, and in considerable quantities, near Imleytown, N. J. The crystals are translucent, and have a laminated and radiated appearance. Colour, dark blue. Before the blowpipe it becomes brownish, prior to its being heated to redness, but boils up when perfectly so, the bead presenting a metallic appearance, and is slightly magnetic. With borax it forms a yellowish brown glass. It is frequently attached to organic remains. The massive or earthy variety, is said to occur in pieces of thirty pounds weight at Allentown, N. J. When first exposed to the atmosphere, it presents a white appearance, but soon changes to a fine sky blue. It is affected by the blow pipe as the crystallized. Professor Cooper has lately proved this to be a hydrat, and not a phosphat of iron. Its solutions in nitric acid, do not precipitate the solutions of lead.

Arsenical Iron. Arsenical Pyrites. W. *Marcasite.* K. *Fer arsenical.* H.

A piece of this mineral of nearly two pounds weight, was given me by a person on Perkiomen, who informed me it was found in the neighbourhood. Colour, yellowish white, fracture uneven. When subjected to the blow pipe, the arsenic was volatilized in a white vapour, giving out a strong alliaceous odour.

Chromate of Iron. Fer Chromate. H.

This combination of chromic acid with iron, is found in the talc rocks of Chestnuthill, where it is generally accompanied with small fibres of asbestus. Colour, rather darker than steel grey. Some of the more impure varieties give a singular appearance to the rocks there. They present dark spots from one quarter to three or four inches, disseminated throughout. It is also found in a very pure state in steatite rock, on Lewis's farm, near the West Chester road, about ten miles from the city, and near the Lancaster turnpike, about the same distance. From the two last localities it is used in the arts here.

Sulphuret of Lead. Galena. Aiken. *Lead Glance.* W. *Plomb sulphure.* H.

A considerable quantity of this species of lead ore has lately been taken up, by Mr. Wetherill, at the mines on Perkiomen. It occurs generally cubic, sometimes steel grained. A few specimens were found by Messrs. J. Lukens and B. Say, presenting a cube with the solid angles truncated, forming a triangular facet. It occurs here with barytes, quartz, phosphate, carbonate and molybdate of lead, and red iron froth. This vein is in the old red sandstone formation, and direction nearly north east and south west, forming a line with the mines near New Hope, Brunswick, and Schuyler's copper mine.

Carbonate of Lead. White Lead Ore. W. *Plomb carbonate.* H.

This mineral is frequently found accompanying the last mentioned one, at the same place, generally crystallized in various forms, and presenting beautiful spe-

cimens. It is transparent, and more resinous than quartz.

A substance which I believe to be the black carbonate of lead is also found at this mine.

Sulphate of Lead. Natural Lead Vitriol. W. *Plomb Sulphate.* H.

Lately this variety of lead has been found by Mr. Lukens, at Perkiomen, but not in any considerable quantities, and generally connected with quartz, or some of the salts of lead. It much resembles the carbonate in translucency, but is distinguishable by its insolubility in nitric acid.

Molybdate of Lead. Yellow Lead Ore. W. *Plomb Molybdate.* H.

This beautiful salt of lead is found, though rarely, at Perkiomen. It occurs in small yellow waxy crystals, generally in the interstices of quartz, or connected with the other lead ores. It was first discovered by Mr. Z. Collins.

Phosphate of Lead. Brown and Green Lead Ore. W. *Plomb Phosphate.* H.

Locality same as the other salts of lead, where it occurs in beautiful pale green coloured crystals, and incrustations.

Sulphuret of Zinc. Blende. W. *Zinc sulphure.* H.

This mineral occurs in considerable quantities, at the mines on Perkiomen creek, of the yellow, brown, and black varieties, generally massive, but sometimes crystallized. Its fracture has a strong resinite aspect. It is associated with barytes, and the vein is nearly six inches in thickness.

Sulphuret of Molybdena. Molybdena. W. *Molybdena sulphure.* H.

On Chester creek, three miles from the town of Chester, and about seventeen south of the city, this metal occurs in considerable quantities, in granite. The specimens from this place, exhibit the usual characters of molybdena, being of a light lead grey, and bright metallic lustre. Its structure is lamellar, and it marks, with much softness, upon paper. It is said to occur here crystallized, but I have never witnessed it. Sulphuret of iron and phosphat of lime accompany it.

Red Oxide of Titanium. Rutile. W. *Titane Oxide.* H.

In the granular limestone of London grove, Chester county, particularly on the property of Mr. John Jackson, this mineral occurs crystallized in prisms, geniculated, in angular and broken pieces, and rolled. Colour, generally that of blood red to brown.

Silico calcareous Oxide of Titanium. Rutilite. W. *Titane siliceo calcaire.* H.

Mr. Vanuxem and myself, about eighteen months since, discovered this species, imbedded in the hornblende rocks of the quarry at the end of the canal road. Some specimens are finely crystallized in very low octaedrons, nearly an inch over, with the obtuse angles truncated. Colour, a dull waxy yellow. Mr. S. Conrad had some years previous, observed it in small quantities, at the falls of Schuylkill.

EARTHY MINERALS.

Zircon. Zirkon. W. *Zircon.* H.

This mineral exists in several places of our neighborhood. It was first discovered at the falls of the Delaware at Trenton, about twenty yards above the eastern abutment of the bridge, in gneiss, by Mr. S. Conrad. Crystals, generally small four-sided prisms, of a dark brownish red, imbedded in pale blue quartz, and greenish feldspar. Another locality of this mineral was discovered by Mr. Vanuxem and myself, about two years since, on the Brandywine, eastern side, about two miles beyond Westchester, on the opposite side of the creek from James Jefferis's farm. It is there found in pieces of blue quartz in the road. Mr. Lukens has also found it lately, about fifteen miles on the York road. Within a few weeks, Mr. A. E. Jessup has found it to occur on the Schuylkill, about ten miles from the city, in a rock similar to that of Trenton.

Pistazite. Epidote. H.

Pistazite, both massive and crystallized, was found by Mr. Vanuxem and myself, in a large piece of quartz, about one fourth of a mile above the upper bridge on the Schuylkill, western side, and nearly one hundred yards from the river. It did not appear to be exactly in place, as it was found on a pile of other stones. Colour, yellowish olive. Form hexaedral prism with diedral summits.

Zoizite. Epidote. H.

Zoizite occurs in the hornblende rocks of the quarry, end of canal road, in acicular crystals and fasiculated, sometimes associated with zeolite, and rutilite. Colour, greyish, and has a slight pearly lustre.

Melanite.

Mr. C. Wister is mentioned by Cleveland as having found this mineral, imbedded in gneiss, back of Germantown, six miles from the city. Form, a double dodecaedron with trapezoidal faces. Colour, velvet black. I do not believe this to be the melanite of European mineralogists, but a fine specimen of the common trapezoidal garnet. Werner says, melanite occurs in the *newest flœtz trap formation.*

Garnet. Grenat. H.

Some beautiful specimens of the variety of garnet called pyrope, occur at Mr. Wilcox's paper mill, about one mile from Concord, Chester county. Colour, a fine dark red, and when polished makes a fine stone of luxury.

Common Garnet.

Very large quantities of this variety, occur in the primitive formation of our vicinity, more particularly so in the mica slate on the Schuylkill.

The best specimens, of the dodecaedron with rhomboidal faces, are found on the Wichicon creek, about nine miles from the city. The prismatic garnet is also found near the same place.

The dodecaedron, truncated on all its edges, occurs on the eastern side of the same creek, on the top of a hill, about half a mile above its confluence with the Schuylkill. A very fine large specimen, now in possession of Mr. S. Morton, measuring about five inches in diameter, was found in digging a well at Barrenhill meeting house, twelve miles from the city.

The trapezoidal garnet, with twenty-four faces, occurs remarkably perfect, of a very deep red colour, in the mica shist, about one and a half miles above the falls of Schuylkill, where the lock is now forming. Some of those taken to Paris by Mr. Vanuxem, are highly prized by Hauy, as beautifully illustrating the theory of decrements.

Manganesian Garnet. Grenat Manganesie. Brogt.

This mineral has lately been discovered by Mr. Jessup, one fourth of a mile west of the Ridge Road, and about nine miles from the city. Colour, brownish red. It has only been discovered massive.

Staurotide, Staurolith. W. *Staurotide.* H.

On the Wichicon, about eight miles from the city, a large, steep, and uncultivated hill, formed by almost perpendicular gneiss rocks on its eastern side, contains a large quantity of this mineral, in single crystals of a dark reddish brown colour, and resinite appearance. Form a hexagonal prism, terminated by diedral summits. It is associated here with dodecaedral garnets and small quantities of cyanite. It was first observed here by Mr. Godon.

Beryl. Edler Beril. W.

This mineral is found on Mr. C. Peale's farm, near Germantown. Colour, yellowish green. I have lately found some specimens of it, in a quarry of gneiss belonging to judge Peters, about three hundred yards above the upper bridge, on the west side of Schuylkill. Colour of one part, yellowish, of another, green, and puts on more the appearance of emerald.

Tourmalin. Schorl. W. *Tourmalin.* H.

In most of the granite and gneiss rocks of our neighbourhood, we find tourmalin, generally crystallized in long prisms, singly and in bunches, sometimes, but rarely, terminated with three or more faces, and always black. More particularly we find it, at judge Peters' quarry, and Sheridan's quarry, near the upper bridge, as well as on the opposite side of the Schuylkill. The finest specimens have been found eight miles on West Chester road.

The brown tourmalin, has been found at London grove in carbonate of lime.

Quartz. Berg Kristal. W.

This mineral exists in large quantities, and in different forms around us.

Amethyst quartz, of a beautiful violet blue, and gradation to a light blossom colour, is found occasionally in Chester and Delaware counties.

Blue quartz, amorphous, is found on the Brandywine, two miles west of Westchester, and contains zircon.

Smoky quartz, is found finely crystallized, on the Brandywine, in Chester county.

Limpid quartz, occurs in large quantities, crystallized, generally aggregated, showing only their pyramids, at Perkiomen and Norristown.

Quartz arenaceous, we have in large quantities on the shores of our rivers, and in the sand and gravel hills west of the city.

Hornstone. Hornstein. W. *Quartz agathe grossier.* H.

This mineral occurs in the gravel hills near the Schuylkill, in small pieces and of a fine texture. On the Easton road, about ten miles and a half from the city, it occurs in large quantities, in place, of a greyish white colour, massive and of a dull splintery fracture. On the road to Springmills, about two hundred yards beyond Barrenhill meeting house, immediately at the cross roads, is found a rock much resembling coarse hornstone. Where it has been exposed to the atmosphere, it separates generally into four-sided prisms, with two acute and two obtuse angles, of an inch or two in diameter and five or six long, the ends are broken at right angles with the prism.

Flint. Quartz agathe pyromaque. H. *Fuerstein.* W.

We find this mineral only in rolled pieces in this vicinity. It exists in the gravel hills near the Schuylkill, and is also found on the shores of the Delaware, of a black colour, containing the remains of a small zoophyte of a globose appearance. Found near the Delaware above Bristol, enclosing terebratula.

Chalcedony. Quartz agathe chatoyant. H. *Kalzedon.* W.

Many beautiful specimens of chalcedony, were found by Mr. Vanuxem and myself, on the Westchester road, between the sixteenth and seventeenth milestones. It is associated with quartz in decomposed serpentine. Colour, bluish milky white, covered with rich, yellow, drusy, quartz crystals. It sometimes contains arborizations, of a hair brown colour, supposed to be confervæ. Mr. Conrad has also found it between Springfield and Concord.

Basanite. Lydian Stone. W.

This variety of silicious slate, is found in rolled pieces at the falls of the Delaware at Trenton, of a dark blueish black colour. It evidently has been brought by the water, from the grawacke and transition limestone formation, in the neighbourhood of Easton, about fifty miles above.

Argillite. Argile schisteuse tabulaire. H.

Clay slate occurs on the Norristown road, about sixteen miles from the city, of a blueish grey colour. It does not appear to be sufficiently perfect there, to be made use of.

Zeolite. Zeolith. W. *Stilbite.* H.

In the hornblende quarry, at the end of the canal road, about four miles from the city, this mineral occurs radiated and incrusting the rocks, of a white colour. It is also found there in crystals, though not very perfect.

Jasper. Quartz Jaspe rouge. H.

Jasper of various colours and fine texture, is found in angular and broken pieces, on the shores of the Delaware and Schuylkill, some of which have chalcedonic veins through them. It occurs in place of a rough yellow colour, about one mile on this side of Springmills, immediately in the road, in considerable blocks, and contains a small portion of chalcedony and drusy quartz.

Feldspar. Feldspath. H. W.

The granite and gneiss rocks of our neighbourhood are, in a great measure, composed of this mineral. A few fine specimens, well crystallized, were found by Mr. Vanuxem and myself, at judge Peters's quarry, about one quarter of a mile above the upper bridge, in ten-sided prisms, with diedral summits, and one specimen hemitrope. About a mile up the canal road, on the eastern side, is found a beautiful white variety, associated with crystallized mica and phosphate of lime.

Adularia.

This variety of Feldspar, occurs in the hornblende rocks, of the quarry, end of canal road. Some specimens are distinctly crystallized.

Desintegrated Feldspar. Kaolin.

Feldspar in a state of decomposition exists on the canal road, and on Mill creek, near the Baltimore turnpike, and in large quantities about three miles west of Chester, near the creek.

Clay.

Nature has abundantly supplied us with this substance, so useful to the manufacturers of porcelain. The numerous kilns for the burning of bricks, sufficiently point out the situation where it is most plentiful. A more pure variety of clay, is found on the Delaware below Bordentown, and thence to New Castle. Large quantities are taken in wagons to Pittsburg, a distance of more than three hundred miles, used by glass blowers, for making pots. Variegated clay is also found near Bordentown.

Mica. Glimmer. W.

This occurs exceedingly abundant in the primitive formation of our neighbourhood. We find it in hexaedral prisms and tabulated, on the Schuylkill, near Germantown, and on the Wilmington road near the Woodlands, where I have found hexaedral crystals of black mica, circumscribed by those of a light brown, forming curious specimens. The largest plates I have seen, of this vicinity; were found by Mr. Vanuxem and myself about fifty yards east of the canal road, just beyond the house of Mr. Caspar Morris. The plates are six inches over; and the hexagonal form of crystallization is beautifully illustrated by the arrangement of lines, of a dark metallic colouring matter, either iron or manganese. Green mica is found at Chestnuthill, near the Wichicon, where it is probably coloured by chrome; also near Chester. Mica very largely enters into the composition of our granite, gneiss, and mica slate rocks.

Chlorite. Talc Chlorite. H. *Chlorit.* W.

Chlorite of a dark green colour, and in fine particles, is found with quartz at Willowgrove; and laminated, near the soapstone quarry on the east side of Schuylkill. Dr. Seybert says, near the Warwick iron works in Chester county, and in Montgomery county near the Schuylkill, but I regard the latter rather as a talc rock.

Hornblende. Gemeiner Hornblend. W. *Amphibole.* H.

Large masses of hornblende rock exist on the Schuylkill, about two hundred yards above the engine house; and about two miles again above that. It is pretty well crystallized, in a bladed and acicular form, on the canal road.

Lithomarge. Steinmark. W. *Argile Lithomarge.* H.

Cleveland says, that this mineral occurs in Montgomery county, but does not particularize the spot.

Steatite. Speckstein. W. *Talc Steatite.* H.

Steatite is found in considerable quantities, about ten miles up the Schuylkill, where, with the connection of

talc, it forms the soapstone rock, which is much used in the city.

Serpentine. Gemeiner Serpentine. W. *Roche Serpentineuse.* H.

Near Westchester this mineral occurs very abundantly, and is used for common building stone. Colour, from light to dark green. It also occurs in Montgomery county.

Talc. Gemeiner Talc. W. *Talc hexagonal et laminaire.* H.

Talc forms a considerable portion of the rocks known by the name of soapstone, on the Schuylkill, about ten miles. It does not occur here crystallized, but laminated and compact, of a greenish grey colour. Some specimens from this quarry, are of a rich green colour, semitransparent, and generally connected with bitter spar, or the magnesian rhomboidal carbonate of lime.

Asbestus. Asbeste. H. *Asbest.* W.

Fibrous asbestus is found in the serpentine rocks about one mile north of Westchester, and in many other places in Chester and Montgomery counties. It occurs also in very delicate fibres on quartz crystallized, in the hornblende quarry, end of canal road.

Mountain Cork. Bergkork. W. *Asbeste tresse.* H.

It occurs at London grove, on the property of John Jackson, in granular white limestone. It is white, and when the pieces are considerably thicker than paper, spongy.

Cyanite, Kyanit. W. *Disthene.* H. *Sappare.* Sau.

This very beautiful and interesting mineral, occurs crystallized in the gneiss rocks on Springfield road, about two hundred yards from Darby bridge. Colour varies from a very light to a dark Prussian blue. It is generally darkest in a longitudinal line along the middle of the crystal, which is for the most part an elongated table. At the eleventh mile stone on the Wilmington road, it is found more abundant, but less pure; crystals generally detached and almost black. On the road to the Lazaretto it occurs blue; also about eight miles up the Schuylkill. On the Wichicon, about four miles from its mouth, associated with staurotide and garnets, in micaceous schistus; but in small quantities. It was first observed by Mr. S. Elliott in this vicinity.

Actynolite. Variety of Amphibole. H. *Strahlstein.* W.

On the Wichicon, about ten miles from the city, opposite to a large mill, half a mile below the bridge, actynolite is found in acicular crystals, of a green colour, imbedded in soapstone rock. Mr. Conrad found it in large masses at Concord, Chester county.

Tremolite. Tremolith. W. *Variety of Amphibole.* H.

I have seen this but in one place in the neighbourhood of this city, viz: at London grove. It here exists in considerable quantities, in the limestone quarries of Mr. John Jackson, both bladed and fibrous, of a beautiful white. In some instances the fibres are so minute, as to render it almost compact.

Carbonate of Lime. Chaux Carbonatee. H, *Kalkstein.* W.

The limestone of our vicinity does not present much variety. It exists in distinct rhombic crystals at London grove, and in White's soapstone quarry with talc, affording fine specimens. Granular limestone occurs in large quantities, about twelve miles on the Reading road, beautifully white, and is much used for the embellishment of the buildings of the city. This variety exists also at London grove, and on the western side of Schuylkill about twelve miles, of a fine black, and clouded. Compact limestone occurs in very large quantities, from a north to a south west direction, at the distance of ten to twenty miles.

Marle. Argile calcarifere. H. *Mergel.* W.

In New Jersey we have two varieties of marl.

Indurated grey marl, with small shining specks, occurs at Croswick's, near Bordentown, and contains organic remains.

Earthy marl occurs in many places, and in great quantities, in different parts of New Jersey, more particularly at Woodbury and at Haddonfield, ten miles from the city. At Burlington, Allentown, and Emleytown, various organic remains are found imbedded in it.

Phosphate of Lime. Spargelstein. W. *Chaux phosphatee.* H.

The crystallized variety of this mineral, is found in most of the granite rocks about us, particularly on the canal road and near Hamiltonville.

The massive variety was found by Mr. Vanuxem and myself, on the Baltimore turnpike, one mile from the bridge.

Fluate of Lime. Chaux fluatee. H. *Fluor Spar.* W.

Mr. Vanuxem proved a mineral to be fluate of lime, which was given him by Mr. Hagner, about two years since, from the quarry of gneiss at the falls of Schuylkill. Colour, violet blue. No determinate crystallization.

Sulphate of Barytes. Baryte. W. *Baryte Sulphatee.* H.

This mineral is found in considerable quantities at the lead mines at Perkiomen, both compact, and crystallized in a crested form, of a white colour, sometimes tarnished by iron either yellow or black, forming fine specimens. It is associated with lead, quartz and iron. About three miles west of Newhope, it occurs in considerable quantities, compact and crystallized, in the old red sandstone formation, with a small quantity of copper.

COMBUSTIBLES.

Amber. Succin. H.

Amber has been found in small quantities at Croswicks creek, about one mile from Bordentown; and on the Delaware, at Whitehill; in both places with pyrites and carbonised wood. Cleveland says, it also occurs near Woodbury, in large plates in a bed of marl; and at Camden, opposite the city, where a large piece had been found in a stratum of gravel.

Bituminous Wood.

This substance is sometimes found in the marl of New Jersey. Some specimens have been brought from Woodbury, black, and of a perfectly ligneous texture. It burns rapidly, and gives out a strong, disagreeable smell. It occurs also at Croswicks creek.

I beg leave to add, that there are several minerals found lately in this vicinity, the characters of which are not sufficiently determined to be admitted into this paper.

THE WEST END OF PENNSYLVANIA.

From a gentleman just returned from a tour to the West, we have received the following notes on the advantages possessed by that section of country.

No part of the United States possesses so many natural resources, or combines so many advantages, as the west end of this state; and as soon as the canals and rail roads, now constructing, are finished, these resources will be developed, and this district of country will take the rank to which they entitle her. Were I called upon conscientiously to point out a district in the United States pre-eminently calculated to favour mechanical labour and manufactories, I would set one foot of the compass in Pittsburgh, and describe a circle around it, whose radius would be 100 miles—and point to it with a confidence that forbids error. What are the advantages that would be so emphatically embraced? I answer, Coal, Iron, Salt, Lumber, Fertility, Healthfulness, Climate, facility of intercourse with the Atlantic, the Ohio Valley, and the Lakes, a hardy Population with industrious habits, and already in possession of much skill.

Let us speak of each of these in their turn.

No country has succeeded in the heavy operations of machinery, and the whole routine of manufactures

without coal and iron. I take them together. They are inseparable aids. Without them, England would not have half the wealth that so pre-eminently distinguishes her. They are the basis of her most lucrative operations. Her artists have repaired to these regions and taken root, and thence diffused wealth and prosperity. The cotton, woollen, and porcelain, and a thousand other branches of manufacture, owe their unrivalled growth to these invaluable materials, and have planted themselves along side of them in many large and wealthy cities. In England, the coal and iron were in the barren and mountainous districts, and it cost her much time and wealth to make good canals and railways to them, and to introduce an agriculture around them adequate to their supply. In east Pennsylvania we boast much of our anthracite coal, but it also is inaccessible except at great cost, and the region around it too sterile to afford a cheap and ready supply of provisions for large operations: hence the effort is to bring down the coal to the more fertile plains of the Schuylkill and Delaware, and there employ it. The cost, however, becomes so increased, from five to eight dollars a ton, that it enters too deeply into the cost of the articles based upon it. Now look to the district we speak of,—the reverse is the fact. As soon as you descend from the Allegheny mountain on the route of the Pennsylvania Canal within the Connemaugh valley, you disturb coal in every hill. Every half mile section of canal uncovers this valuable article; the same is true of the route of the Baltimore Rail Road. This is the case as far down the Ohio river as Wheeling, and up the Beaver line of the canal. The whole area above described abounds in it; every hill rests upon horizontal strata of coal—the mouths of the pits above the valleys—no deep mining, choak damps, or gaseous explosions—the cart drives into the hill and brings out the coal—if you own the land the quarrying is 14 cents a ton, and 28 cents if you do not own the mine, unless you are near some town, when you will give from 3 to 4 cents a bushel, or one dollar a ton. So universal is the coal, that in buying land you do not ask the question, "has it coal," nor does the value enter at all into the price of the land. You get good land at 5 or 8 dollars an acre, with plenty of coal on it; one hand quarries and wheels out 180 bushels a day at 50 cents wages. The Pennsylvania Canal will present a line of 200 miles within this district—the Baltimore Rail Road 100 miles—and the Ohio river 100 miles—in all 400 miles; which may be literally lined with manufacturing villages, each leaning against its own coal mine—deriving iron, lumber, and other materials from the canal, road, or river—and drawing provisions and subsistence from the fertility that is around every point. When coal and provisions become in any degree advanced at Pittsburgh, or any other condensed point—others, where coal is less monopolized, may be resorted to, and where the provisions would be more plentifully supplied along the lines of these communications; and thus the nucleus of new villages be every day formed. This coal is of an excellent quality, and can be coked for operations of iron manufacturing. The anthracite of the Schuylkill never can from its compact nature.

Iron not only abounds within the above district, but it leans upon the great and inexhaustible region of the Allegheny mountains, the Juniata, the Upper Monongahela, and the Allegheney rivers, whence never ending supplies of the best iron can be derived; embracing all the qualities from the tough Swedes' iron to the coal short of England. The Juniata iron is very similar to the Swedish iron. The Allegheney iron is harder, and makes the best grey pig iron for fine casting. Already the iron of this region is much developed, and could rapidly, with the start they have, supply any state of the arts and manufactures.

Salt, an article of the first necessity in domestic economy, and much used in the arts, abounds in this district; already much is developed, the capacity ascertained, and the fuel at hand, to render it cheap. This article is also upon the line of the canal above noticed.

Lumber. The most valuable pine forest in the United States, and the only one that connects itself with the Ohio valley, touches this region, (I mean the Allegheney river.) It supplies all the western country with pine building timber, and for many of the mechanic arts; and cheap on account of its contiguity. Other timber, such as oak, maple, cherry, and poplar, abound in this district.

Fertility. This is the only hilly or waving country of its extent in the United States, that is uniformly fertile. There is no waste land; not more rock or stone than is necessary for domestic uses, and for the arts. Every hill rests on its coal, but without disturbing the fertility above; the grain grows, the orchard thrives, the cattle graze over the coal, unconscious of its existence. In other countries, hills so high and boldly relieved as these, are covered with the debris of rock, or are washed bare by the retreating waters, and left with scrub or stunted growth. These are not so. The forests are tall and majestic on the hills, the fertility continuous, and all either suited for grain, orchard, or grass.

Healthfulness. No swamp is found in this region. There are no malaria—no intermittent, or any other disease, incident to a bad climate. All is healthy. The population stout and active, and will be more intelligent and enterprising, for disease not only checks the labour of a country, but renders its population inefficient and stupid.

Climate. This is good—equally removed from the extremes of the Canadian and Gulph latitudes. The mild, genial, healthy latitude of Philadelphia—with just winter enough to brace, and heat enough in summer to ripen the finest fruits, and mature the greatest variety of the grain and root crops.

Provisions. These are literally under foot; produced in the greatest quantity, of the best quality, and with little labour; hence they are cheap, and the wages of the day or monthly labourer take pitch from this circumstance, and altogether enable the operator to produce his article at the minimum prices. This will secure his market.

Wool. No part of the United States by actual experience, suits the growth of sheep so well as this. The hills of Washington, Allegheney, and Fayette counties, are already covered with sheep, of an excellent breed. In two years, wool would meet any demand in that district, and could be furnished cheap. The land is cheap,—they graze, and procure such good pasturage, that it is said eight sheep can be supported on one acre.

Flax can be growed with great perfection on the fertile hills of this region; and the Ohio river brings them the hemp of Kentucky so cheap, that it may be said to belong almost to this district.

Market. In its relation to a market and consumption, this district is very happily situated. Connected directly with the Atlantic cities by the Pennsylvania Canal and Baltimore Rail Road, and at the same time so far removed from the Atlantic as to be a little out of the sphere of foreign competition. This is the most desirable sort of connexion with the maritime cities; just near enough to derive through them every thing necessary for the perfection of the arts—and just far enough from them to be out of the sphere of foreign importation. Besides the dense population around it, and offering great consumption, it rests upon the vast and unlimited market which the valley of the Ohio and Mississippi rivers furnish—is connected directly with it by the longest and best line of interior navigation on earth. A line already covered with steam boats—one hundred and sixty-six rest upon its stream, ready to bear cotton, iron, lumber, hemp, and every other raw material essential to a manufacturing district, and on the cheapest terms. Three-fourths of a cent a pound is the cost up this great line, from New Orleans to Pittsburgh. And in sending off the manufactured articles still less, for the stream is in favour of this

operation, and carries them to the consumer with scarcely any increase of cost. Again, this is the district whence the easy connexion with the great lakes is about to take place; opening thence a market almost equal in extent to the Mississippi valley, and connecting you, if your interest should require it, with N. York, through her canals. Thus we see this is the identical district where the great lines of intercommunication cross and meet, from New York, Philadelphia, Baltimore, New Orleans, and the great lakes. Any shifting of your position throws you out of the focus of the great radii of commerce. Come more east, you not only change your supplies, and increase the cost of them, but you are drawn into the vortex of foreign commerce. Go further west, and you lose the vantage ground; you enter the swamps of the lower Ohio; have no coal, iron, or other materials, and you will have to push up the streams to market.

This district need have no timber reserved for fuel. Every acre can almost support its soul. There is no limit to the population in such a country.

EFFECTS OF CLIMATE ON THE NAVIGATION.

The following investigation was commenced last winter with a view to ascertain the periods at which the navigation of the Delaware, has usually been obstructed by ice, and when it became freed from such obstruction.—For this purpose we have consulted the news papers for the different periods, confining our attention principally to December, January, February and March, although occasionally notice is taken of some other months. The early Gazettes have generally noticed the occurrence of ice. Some of the late papers have omitted it. During the revolution, we find but few remarks on the subject, and in some years none at all.

1681. *December* 11. The river froze over that night. The Bristol Factor, Roger Drew, arrived at Chester from England, with settlers for Pennsylvania, where they lay all winter.

1692. "The great flood at Delaware falls, owing to the sudden melting of the snows, the water reached the upper stories of some of the houses, which were built on the low lands.

1704. Snow fell one yard deep. *Mease.*

1714. *February.* Flowers seen in the woods.

1720. *February* 23. The river is now clear of ice.

November 11. "My ink freezes, which obliges me to conclude." *Close of a merchants letter, dated Philadelphia."*

December 20. Our river is full of ice, and the ship Prince of Orange, which is going with a flag of truce and Spanish prisoners to St. Augustine, is in great danger.

Decr. 27. The river being now clear of ice, vessels are falling down.

1721. *Decr.* 19. No vessels arrived since our last, the river being full of ice.

Decr. 26. Do do locked up.

1722. *Jany.* 2. River still locked up.

—— 6. Vessels get up to New Castle.

—— 9. 16. 22. River still locked up.

Feby. 6. Vessels cleared and entered.

1723. *January* 1. Weather is yet very moderate and our river open.

—— 6. Weather is yet very moderate, and river free from ice.

December. Vessels enter and clear through the month.

1724. *January* 18. River very free from ice.

December 15. On Thursday last a violent storm of wind and rain; tide overflowed the wharves. Two outward bound vessels returned for fear of ice, of which our river is very full.

December 22. River full of ice.

December 29. Some driving ice, but not so as to prevent vessels going up or down.

1725. *March* 3. Snow fell near two feet deep last night, and yesterday, which has not been known for some years.

December 21. River is very full of ice, though several vessels came up with it; no arrivals or clearances mentioned till 18th July.

1726. *January* 18. Entries and clearances.

February 1. No vessels in or out since our last, river being blocked up by ice.

—— 15. River driving with ice.

December. Entries and clearances through the month.

1727. *February* 14. Very cold weather for four days which has filled our river full of ice.

March 30. Weather and floods prevented the legislature from meeting at the time to which they stood adjourned.

1728. *January* 23. We have had very hard weather here for nearly two weeks; so that it has frozen our river up to such a degree that people go over daily, and they have set up two booths on the ice about the middle of the river.

—— 30. River still fast.

February 7. Some say the ice is driving near Bombay Hook. River here still fast. No clearances mentioned till March 5.

December 31. 36 vessels, besides small craft, frozen up at docks, viz. large ships 14; snows 3; brigs 8; sloops 9; schooners 2.

1729. *January* 29. Our river still frozen up.

February 17. Entries and clearances.

December Entries and clearances through the month.

1730. *January* 13. A large panther killed near Conestoga; also one last week near Shrewsbury, N. J.

—— 20. We had here such a deep snow, the like not known these several years. River full of ice; no vessels can pass.

—— 27. A vessel cleared.

December 21. Vessels attempting to go were forced back by ice.

—— 29. Entries and clearances.

1731. *January* 26. River still full of ice.

February 2. No vessels since our last; river locked up with ice.

—— 9. Entries and clearances.

—— 16. Last week we had the greatest fresh in the Delaware ever known since the great flood at Delaware falls 39 years ago.

December 14. Our river is now full of ice.

—— 21. River a little opened; vessels design going.

1732. *January* 4. Vessels at Hoarkill cannot come up for ice.

—— 25. River still fast.

February 22. Entries and clearances.

December. do. do.

1733. *January* 18. Great snow at Lewes; ice driven ashore by a N. E. storm.

February 1. River still fast.

—— 15. Ice grows rotten; expected to drive in a few days.

—— 22. Sunday last; ice in Schuylkill broke up, though prodigious thick, with a fresh; water two and a half feet high on the ground floor of Joseph Gray's house at Middle ferry; higher than any known fresh before.

March 8. River open; vessels come up from Lewes.

April 19. Monday last two whales appeared before the city.

December. Entries and clearances.

1734. *January.* 1. River continues open, and weather very moderate; winter hitherto as moderate as for many years past.

December 21. Our river is now free from ice; weather fine and open.

1735. *January* 16. Our river continues open and the weather very moderate.

March 4. Saturday last quantities of codfish taken just off the capes.

December. Entries and clearances.

1736. *January* 6. River is fast, and full of ice.

February 5. Arrivals.

——— 25. Two whales killed at Cape May.

April 22. Hail storm near the city; stones as large as pidgeons' eggs.

December. Arrivals and clearances through the month.

1737. *January* 20. Weather very cold; persons frozen to death; a vessel below cannot come up on account of the ice.

February 3. Sunday night last the ice in the Schuylkill, though exceedingly thick and strong, broke up with the fresh occasioned by the rains and melting of the snow. The water rose near six feet on the ground floor of Joseph Gray's house at the middle ferry, which is three feet higher than it was in the fresh in 1733, and that was said to be the highest ever recollected.

March 17. On Wednesday and Thursday last a S. E. storm raised the tide higher than known for many years, and which did great damage.

May 7. An aurora borealis.

December 8. Earthquake last night about eleven o'clock; lasted half a minute.- Entries and clearances through the month.

1738. *January and February*. Entries and clearances through the month.

April 6. A great storm at E. and N. E.; damaged wharves; creeks very much raised.

December. Entries and clearances till 18th.

1739. *January* 25. River now entirely clear of ice; vessels gone down; fast since 18th December.

December. Entries and clearances.

1740. *January* 10. No entries or clearances from this date till

February 21. When arrivals are mentioned.

March 15. Ice broke up in the Delaware.

December 19. River unnavigable from this to 13th March.

1741. *January* 8. Our river has been fast some time, and we heard from Lewes that 'tis all ice towards the sea as far as the eye can reach. Tuesday and Wednesday are thought to have been the coldest days for many years.

March 5. The severity of the winter complained of throughout the country. Cattle dying for want of fodder; many deer found dead in the woods, and some came tamely to the plantations, and fed on hay with other creatures.

March 13. River navigable. The winter extremely long and severe.

19. River now quite open; vessels daily come up.

April 19. We hear from Lancaster county that during the great snow, which in general was more than three feet deep, the back inhabitants suffered much for want of bread; that many families of new settlers had little else to subsist upon but the carcases of deer they found dead or dying in the swamps or runs about their houses. The Indians fear a scarcity of deer and Turkies, &c.

December. Entries and clearances.

1742. *January*. do. do.

22. Comet visible for some time.

February and *March*. Entries and clearances—no mention of ice.

Dec. Entries and clearances—no mention of ice.

1743. *Jan.* do. do. do.

Dec. 8. A comet visible.

1744. *Jan.* 3. No entries this week—river full of ice.

——— 19. Arrivals. A comet has been visible for six weeks; appears to have increased in size.

Dec. Entries and clearances.

1745. *January, February, March*. Entries and clearances; find no mention of ice.

March 26. Friday last, a violent gust—houses damaged and trees uprooted.

Dec. Entries and clearances.

1746. *January*. No arrivals nor clearances this month; no ice is mentioned.

December 28. River frozen up for a week past.

1747. *February* 24. First arrivals since 23d December.

April 30. A violent N. E. storm did much damage.

December 15. No entries this week, river being full of ice.

1748. *January* 12. Entries and clearances.

——— 26. A vessel ashore on Reedy Island, cut through with the ice—no entries or clearances—severe weather—a man frozen to death on a flat in Mantua Creek.

February 2. Entries and clearances.

——— 9. River again full of ice; no entries or clearances till March 1, when there are some.

April 21. A comet visible for 8 or 10 night's past

December. Entries and clearances through the month.

1749. *January* 31. A vessel reaches "Elsingburgh." The river, by hard S. E. gale almost freed from ice.

February 7. River again full of ice.

——— 14. Arrivals.

June 1. Great quantities of locusts.

December. No arrivals from 12 to 26; ice not mentioned.

1750. *January* 22. Our river is now broke up; and yesterday a vessel went down. This morning a violent N. E. storm, which has done considerable damage to the vessels and wharves.

February 6. River free from ice; vessels going up and down.

February 16. A very bright aurora borealis.

May 30. It is said this has been the coldest May in the memory of man; last week there were frosts in several places, which have done considerable damage, and in some places snow.

December 25. A violent N. E. storm last Thursday; it damaged our wharves considerably, and sunk some small craft.

1751. *January* 1. River full of ice.

——— 22. River so open that a shallop came up from Marcus Hook. This morning a violent S. E. storm which damaged wharves and vessels.

October 3. Monday night last the streets of this city began to be illuminated with lamps in pursuance of an act of Assembly.

December 24. For a week past our navigation has been stopped, the river being very full of ice.

1752. *February* 18. Our river has been driving for some days past, and is now so clear of ice, that if the weather continues moderate in a few days vessels will fall down.

February 25. River entirely clear; 12 sea vessels arrived in one tide.

1753. *Jan.* 2. Our navigation is stopped; river full of ice.

——— 9. Vessels entered.

23. Navigation quite clear.

November 14. A violent gale from E.; wharves overflowed, and water in most of the stores.

December 29. River full of ice. Navigation stopped. On Monday last a violent S. E. storm drove several vessels ashore.

1754. *January* 15. Our river is now and has been for several days quite clear of ice.

January 22. Unusually low tide owing to a gale from N. W.

June 6. On Tuesday afternoon a shower of ex-

ceeding large hail; a water-spout appeared on the Delaware opposite Kensington, which was carried up Cooper's creek, and supposed to break on the shore, where considerable damage was done.

December. Entries and clearances through the month.

1755. *January* 14. There is so much ice at present in the river that our navigation is stopped.

January 21. Clearances from this date forward.

December. do. through month.

1756. *January* and *February*. Clearances through the month.

March 18. On Friday night we had a violent N. E. snow storm, which did considerable damage to the vessels at the wharves, and probably on the coast. This is the first mention of snow. Arrivals and clearances continue through the month. There is no intimation that the navigation was interrupted this winter.

December. Entries and clearances.

——— 30. "People surprised at the appearance of two Parhelia, or mock suns, one on each side of the true one, and a large white circle passing through all three, and a crown or small rainbow in the zenith, which appearance lasted nearly an hour, between ten and eleven o'clock in the morning."

1757. *January*. Clearances and arrivals throughout the month, although the managers of the New Castle Lottery advertised that they have been prevented by the severity of the weather, from riding about to sell their tickets, and the country people from coming in to purchase; no mention of the navigation being interrupted, and entries and clearances published every week through the winter.

December. Entries and clearances through the month.

1758. *February* 2. Navigation has been stopped some days, and is still, there being a good deal of ice in the river.

——— 16. River almost clear of ice; some vessels have fallen down.

March 22. A smart shock of an earthquake felt between ten and eleven o'clock P. M.

December 28. For a few days past our river has been full of ice, but is now likely to be soon clear again.

1759. *January* 4. Our river is so full of ice that no vessel can stir.

——— 11. Arrivals and clearances.

——— 25. River has for some days been interrupted with ice.

February 1. Clearances.

December 28. Navigation stopped for a week past. River full of ice.

1760. *January* 3. Clearances.

17. Thursday last our river was so free from ice that a vessel came up; but it is now fast again.

February 7. For three days past have had a fine thaw by which the ice is greatly dissolved, and we hope the navigation will be open in a few days.

14. Arrivals and clearances.

March 20. On Sunday last, we had a violent N. E. snow storm, when considering the season of the year and the time it lasted (18 hours) there was the greatest fall of snow that has been known, it is said, since the settlement of the province.

December. Arrivals, &c. through the month.

1761. No arrivals or clearances from January 15 to 5th February.

December 17. Our river is and has been interrupted by ice for some days past.

24. Navigation quite stopped—measures for relief of the poor.

1762. *January* 14. On Saturday and Sunday last we had a violent N. E. storm here, which, with the sudden thaw for some days before, occasioned prodigious freshes and the tides to rise higher than has been known for some years past—our river is now so clear of ice that we expect vessels up.

21. Arrivals.

December. Entries and clearances during the month.

1763. *January* 13. Our navigation now is and has for some days been stopped—river full of ice.

27. A vessel reaches Marcus Hook.

February 24. A moderate thaw for some days—ice in river greatly diminished—on Tuesday a brig came up.

December. Entries, &c. during month.

1764. *January* do do

December 27. Our navigation was at a stand for a few days, the river being full of ice; but on Tuesday night we had a violent N. E. storm for some hours, which ended in rain—and the wind blowing prodigiously hard at the same time destroyed the ice, so that some vessels ventured down yesterday.

31. Delaware frozen over in one night—passable next morning.

1765. *January* 3. Our navigation has been quite at a stand for a week past.

February 7. On Tuesday last an ox was roasted whole on the river Delaware, which from the novelty of the thing, drew together a great number of people.

February 14. The weather is now so moderate and our bay so clear of ice, that the vessels at the Capes are come up to Reedy Island.

28. Our navigation is now quite clear and several vessels have came up.

A letter from Fort Pitt dated January 31, 1765, says "the weather has been so uncommonly severe at this post, that both rivers have been passable on the ice for six weeks."

March 28. On Saturday night last came on here a very severe snow storm which continued all night and next day, when it is believed the greatest quantity of snow, that has been (considering the advanced state of the season) for many years past, it being said to be about 2 or 2½ feet on a level, and in some places deeper. A great number of trees are destroyed; some torn up by the roots, others broke off and the roads so bad that there is scarcely any travelling.

December. Entries, &c. all the month.

1766. *January* 9. River quite fast since Friday last—weather very severe.

30. No arrivals &c. since 9th—ice mostly dissolved.

February 6. Arrivals.

16. A sloop drove up to New Castle in a cake of ice.

December. Arrivals and clearances throughout.

1767. *January* 1. Our river is so full of ice that navigation is at a stand. Thermometer 6° on 2d, 5°

——— 8. From the very great unexpected thaw since Saturday last, our river is now pretty clear of ice. On Monday night at the middle ferry, Schuylkill, the ice carried away all the boats, broke the ropes, tore the wharf and did other considerable damage; some of the out houses, being washed away by the water overflowing the banks.

December 24. The cold weather of Saturday night, filled the river so full of ice that vessels could not depart; but on Tuesday there was a fine thaw accompanied with rain and the weather is now moderate, and we hope the navigation will soon open again.

1768. *February* 11. Our river is now so clear of ice, that vessels get up and down.

March 24. On Saturday night last, we had a most violent snow storm from N. E.

December. Arrivals and clearances through the month.

1769 *Jan.* Arrivals and clearances through the month.
February 23, Since our last, have had a fine thaw, warm sun and some rain by which our navigation is now clear.
March 16. Saturday last, a remarkable low tide in the Delaware owing to N. W. winds. It is said to be 2½ feet lower than common low water mark, and in the Schuylkill it was so low that the ferry boats could not get to the fast land on either side for some time.
December 21. Our navigation was for several days at a stand, river being full of ice, but on Thursday last, about 60 vessels went down.
1770. *January* 11. At present there is so much ice in the river that the navigation is at a stand.
February 15. Our navigation is now so clear that vessels come up.
December. Entrances and clearances this month.
1771 *January*. do do
February 14. On Saturday morning we had a gale from south and rain—higher tide than known for several years. River now so full of ice as to stop navigation.
——— 28. Navigation again clear.
March 14. On Saturday night violent gale from E. N. E. and heavy rain—lasted all day—did much damage.
December 26. The cold has been so intense for 3 days past that navigation is at a stand—river full of ice.
1772 *January* 2. River pretty clear of ice on Tuesday; but yesterday so much ice as to obstruct navigation.
January 10. A great quantity of ice prevents a vessel getting up.
——— 30. Hail and snow storm from N. E. The cold this month has been excessive.
February 20. The thermometer in the shade, stood at 65°, higher than felt here for many years. The navigation which has been obstructed by ice is now entirely open.
March 16. During the last week there fell large quantities of snow, in many places 2 feet deep—a good deal of ice in the river.
April 2. There fell 6 inches of snow; entirely melted by 5th.
——— 25. A slight shock of an earthquake about 8 A. M.
December. Arrivals and clearances through the month.
1773 *January* 20. River full of ice—navigation stopped.
——— 21. Thermometer in open air on east side of the city at 2 P M 8 above° at 4 P M 7° at 6 P M 5° at 10 P M 1°
——— 6 A M 0° at noon 11° above 0, at 6 P M, 14° above 0, at 10 P M 11 above 0—west side of the city—at 6 A M 4 below 0; another situation on the 21st 3 P M 5°; 22d at 9 A M 0. A glass of wine within 8 or 9 feet of a chimney where there had been a hickory fire the whole evening till midnight, congealed to the consistency of snow.
March 3. Vessels that had been detained by ice came up.
1774 *December*. Entries and clearances.
January 12. River so full of ice that the navigation is stopped.
February 14. River fast bound with ice.
December 22 & 23. Snow.
——— 28 & 29. Snowing—deep snow on the ground.
——— 30. Ice in the Delaware.
1775 *January* 17. Delaware navigable.
——— 18 & 19. Snow.
February 12. Snow.
September 3. Highest tide ever known.
November 19. Snow.

(To be Concluded.)

GOVERNORS, DEPUTIES, PRESIDENTS, &C. OF PENNSYLVANIA.

1682 Oct. Wm. Penn (proprietor) acted as Gov. till
1684 Augt. Thomas Lloyd, esq. President till
1688 Dec. Captain John Blackwell (Dep. Gov.) to
1690 Feb. President and Council.
1693 April 26 Benjamin Fletcher, esq. Governor.
—— June 3 William Markham, esq. Dep. Governor.
1699 Dec. 3 William Penn acted again as Governor.
1701 Nov. 1 Andrew Hamilton, esq. Dep. Governor.
1703 Feb. President, Edward Shippen and Council to
1704 Feb. John Evans Deputy to
1709 Feb. Charles Gookin, esq. Dep. Governor to
1717 March Sir William Keith, Bart. Dep. Governor to
1726 June Patrick Gordon, esq. Deputy Governor to
1736 June James Logan, esq. President and Council.
1738 June George Thomas, esq. Dep. Governor to
1747 June Anthony Palmer, President to
1748 June James Hamilton Dep. Governor to June
1754 Oct. Robert Hunter Morris, esq. Dep. Gov. to
1756 Aug. 19 William Denny, esq. Dep. Governor to
1759 Nov 17 James Hamilton to
1763 Oct 31 John Penn, son of Richard to
1771 May 6 Council, James Hamilton President
1771 Oct 16 Richard Penn succeeded.
1773 Augt John Penn (a second time Governor) to
1776 Sept
1777 March Thomas Wharton, jr. esq. President of Supreme Executive Council
1778 Oct Joseph Reed do
1781 Nov William Moore do
1782 Nov John Dickinson do
1785 Oct Benjamin Franklin do
1788 Oct Thomas Mifflin do

Governors under New Constitution,

Shewing the votes for each candidate and each opponent, as well as the whole number of votes given in the State at each Gubernatorial election:

1790 October Thomas Mifflin, votes, 27,725, whole number of votes given in the State 30,529
1793 Oct Thomas Mifflin, votes, 19,590 *opponent*, F. A. Muhlenburg, who had 10,700 votes: total votes 30,310
1796 Oct Thomas Mifflin, votes, 30,020 total votes 31,031
1799 Oct Thomas M'Kean, votes, 37,244 *opponent* James Ross, who had 32,-643 votes—total votes, 69,887
1802 Oct Thomas M'Kean; votes 47,879; *opponent* James Ross, who had 17,-037 votes—total votes, 65,010
1805 Oct Thomas M'Kean; votes, 43,644; *opponent* Simon Snyder, who had 38,483 votes—total votes 82,522
1808 Oct Simon Snyder; votes, 67,975 *opponent* James Ross, who had 39,-575, and John Spayd 4006—total 111,564
1811 Oct Simon Snyder; votes 52,319—total votes 57,603
1814 Oct Simon Snyder; votes, 51,099—*opponent*, Isaac Wayne, who had 29,566—total votes 81,593
1817 Oct William Findlay; votes, 66,331; *opponent* Joseph Hiester, who had 59,272—total votes 125,614
1820 Oct Joseph Hiester; votes, 67,905; *opponent* William Findlay, who had 66,300—total votes 134,226
1823 Oct J. Andrew Shulze; votes, 89,-928; *opponent* Andrew Gregg, who had 64,211—total votes 154,147
1826 Oct J. Andrew Shulze; votes, 72,-710—total votes, 75,059

Facts derived from a report to the Legislature, appointed to inquire into the election of 1817.

The number of Taxables in 1807, was 138,285, and in 1814 165,427, making an increase of 27,142 in 7 years, or 3877 per annum, at which rate the taxables for 1817 would amount to 177,058. The number of votes given at election of 1817 was therefore 51,515 less than the taxables.

Upon the same principle the taxables in 1808 would amount to 142,162. The number of votes that year was 111,564, which is 30,398 less than the taxables.

The taxables in 1800 were 112,333, and those in 1807 138,285, being an annual average increase between 1800 and 1807, of 3707—deduct two years increase, say 7754, from the taxables of 1807, and it gives 130,531 for the taxables of 1805, when the number of votes for Governor was 82,522, which is 48,009 less than the taxables of that year.

By the same process the taxables in 1799 were 108,626. At that election 69,887 votes were given,, being 38,739 less than the taxables.

In the city and county of Philadelphia, the taxables for 1814 were 19,869—and the votes at the election of 1817, were 12,064.

Votes given in the City and County of Philadelphia, at the different elections for Governor. From the Journals.

VOTES.	CITY.	COUNTY.	TOTAL.
1790	1859	1439	3,298
1793	567	812	1,379
1796	——	——	——
1799	2749	3701	6,450
1802	——	——	6,934
1805	——	——	7,988
1808	5688	5907	11,592
1811	——	——	3,708
1814	5082	5049	10,131
1817	——	——	12,064
1820	——	——	11,417
1823	——	——	14,414
1826	——	——	7,268

King Charles the Second's Grant of the Town of New-Castle, and the three lower Counties, to the Duke of York.

Charles, by the grace of God, King of *England, Scotland, France* and *Ireland*, defender of the faith, &c. To all to whom these presents shall come, *Greeting*. Know ye, that we, for divers good causes and considerations us thereunto moving, have, of our especial grace, certain knowledge, and meer motion, given and granted, and by these presents, for us, our heirs and successors, do give and grant unto our dearest brother James, Duke of *York*, his heirs and assigns, all that the town of *New-Castle*, otherwise called *Delaware*, and fort therein or thereunto belongiug, situate, lying and being between *Maryland* and *New Jersey*, in *America*, and all that tract of land lying within the compass or circle of twelve miles above the said town, situate, lying and being upon the river *Delaware*, and all the Islands in the said river of *Delaware*, and the said river and soil thereof lying north of the southermost part of the said circle of twelve miles about the said town; and all that tract of land upon *Delaware* river and Bay, beginning twelve miles south from the said town of *New-Castle*, otherwise called *Delaware*, and extending south to *Cape Lopen;* together with all the lands, islands, soils, rivers, harbours, mines, minerals, quarries, woods, marshes, waters, lakes, fishings, hawkings, huntings and fowlings, and all other royalties, privileges, profits, commodities and hereditaments, to the said town, fort, tracts of land, islands and premises, or to any or either of them belonging or appertaining, with their and every of their appurtenances, situate, lying and being in *America;* and all our estate, right, title, and interest, benefit advantage, claim and demand whatsoever, of, in, or to the said town, fort, lands, or premises, or any part or parcel thereof, together with the yearly and other rents, revenues and profits of the premises, and of every part and parcel thereof; *to have and to hold* the said town of *New-Castle*, otherwise called *Delaware*, and fort, and all and singular the said lands and premises, with their and every of their appurtenances hereby given and granted, or herein before mentioned to be given and granted unto our said dearest brother James, Duke of *York*, his heirs and assigns, for ever; to be holden of us, our heirs, and successors, as of our manor of *East-Greenwich*, in our county of *Kent*, in free and common soccage, and not in capite, nor by Knight's service, *yielding* and *rendering*, and the said James, Duke of *York*, for himself, his heirs and assigns, doth covenant and promise, to *yield* and *render* unto us, our heirs and successors, of and for the same yearly, and every year, four Beaver skins, when the same shall be demanded, or within ninety days after such demand made. And we do further of our special grace, certain knowledge and meer motion, for us, our heirs and successors, give and grant unto our dearest brother JAMES, Duke of *York*, his heirs, deputies, agents, commissioners and assigns, by these presents, full and absolute power and authority, to correct, punish, pardon, govern and rule, all such the subjects of us, our heirs and successors, or any other person or persons as shall from time to time adventure themselves into any the ports and places aforesaid, or that shall or do at any time hereafter inhabit the same, according to such laws orders, ordinances, and institutions, as by our said dearest brother, or his assigns, shall be established; and in defect thereof, in case of necessity, according to the good discretion of his deputies, commissioners, officers, or assigns respectively, as well in cases and matters capital and criminal as civil, both marine and others, so always as the said statutes, ordinances and proceedings be not contrary, but (as near as may be) agreeable to the laws, statutes and government of this our realm of *England:* and *saving* and *reserving* to us, our heirs and successors, the receiving, hearing and determining of the appeal and appeals of all, or any person or persons of, in, or belonging to the town, fort, lands and premises aforesaid, or touching any judgment or sentence to be there made or given. And further, that it shall and may be lawful to and for our dearest brother, his heirs and assigns, by these presents, from time to time, to nominate, make, constitute, ordain and confirm such laws as aforesaid, by such name or names, stile or stiles, as to him or them shall seem good; and likewise to revolve, discharge, change and alter as well all and singular governors, officers and ministers, which hereafter shall be by him or them thought fit and needful to be made or used within the aforesaid town, fort, lands and premises; and also to make, ordain and establish all manner of laws, orders, directions, instructions, forms and ceremonies of government and magistracy, fit and necessary for and concerning the government of said town, fort, lands and premises, so always as the same be not contrary to the laws and statutes of this our realm of *England*, but (as near as may be) agreeably thereunto, and the same at all times hereafter to put in execution, or abrogate, revoke or change, not only within the precincts of the said town, fort, lands and premises, but also upon the seas, in going and coming to and from the same, as he or they, in their good discretion, shall think fittest for the good of the adventurers and inhabitants. And we do further, of our special grace, certain knowledge, and meer motion, grant, ordain and declare, that such governors, deputies, officers and ministers, as from time to time shall be authorized and appointed in manner and form aforesaid, shall and may have full power and authority within the said town, fort, lands and premises, to use and exercise martial law in case of rebellion, insurrection and mutiny, in as large and ample manner as our lieutenants in our counties within our realm of *England* have, or ought to have, be force of their commissions of lieutenancy, or any law or statute of this our realm. And

we do farther, by these presents, for us, our heirs and successors, grant unto our dearest brother JAMES, Duke of *York*, his heirs and assigns, in his and their discretions, from time to time; to admit such and so many person and persons to trade and traffick unto and within the said town, fort, lands and premises, and into every and any part and parcel thereof, and to have, possess, and enjoy any lands and hereditaments in the parts and places aforesaid, as they shall think fit, according to the laws, orders, constitutions and ordinances, by our said brother, his heirs, deputies, commissioners and assigns, from time to time to be made and established by virtue of, and according to, the true intent and meaning of these presents, and under such conditions, reservations and agreements, as our said dearest brother, his heirs and assigns, shall set down, order, direct and appoint, and not otherwise, as aforesaid.

And we do further, of our special grace, certain knowledge, and meer motion, for us, our heirs, and successors, give and grant unto our said dearest brother, his heirs and assigns, by these presents, that it shall and may be lawful to and for him, them, at all and every time and times hereafter, out of any our realms or dominions whatsoever, to take, load, carry, and transport, in and into their voyages for and towards the plantation of the said town, fort, lands and premises, all such and so many of our living subjects, or any other strangers, being not prohibited, or under restraint, that will become our living subjects, and live under our allegiance, and shall willingly accompany them in the said voyage, together with all such cloathing, implements, furniture, or other things usually transported, and not prohibited, as shall be necessary for the inhabitants of the said town, fort, lands and premises, and for their use and defence thereof, and managing and carrying on the trade with the people there, and in passing and returning to and fro; *yielding* and *paying* unto us, our heirs and successors, the customs and duties therefor due and payable, according to the laws and customs of this our realm. And we do also, for us, our heirs and successors, grant to our said dearest brother James, Duke of *York*, his heirs and assigns, and to all and every such governor and governor's, deputy or deputies, or their officers or ministers, as by our said brother, his heirs or assigns, shall be appointed, over the inhabitants of the said town, fort, lands and premises, that they and every of them shall, and lawfully may, from time to time, and at all times for ever hereafter, for their several defences and safety, encounter, repulse and expel, and resist, by force of arms, as well by sea as by land, and by all ways and means whatsoever, all such person and persons as, without the special licence of our said dearest brother, his heirs or assigns, shall attempt to settle and inhabit within the several precincts and limits of the said town, forts lands and premises; and also all and every such person or persons whatsoever, as shall enterprize and attempt at any time hereafter, the destruction, invasion, detriment or annoyance, to the parts, places, town, fort, lands and premises aforesaid, or any part thereof.

And lastly, our will and pleasure is, and we do hereby declare and grant, that these our letters patents, or the enrolments thereof, shall be good and effectual in law, to all intents and purposes whatsoever, notwithstanding the not well or true reciting or mentioning of the premises, or any part thereof, or the limits or bounds thereof, or of any former or other letters patents or grants whatsoever, made or granted of the premises, or of any part thereof, by us, or any of our progenitors, unto any person or persons whatsoever, bodies politick or corporate, or any other law or other restraint;* in certainty or imperfection whatsoever to the contrary in any wise notwithstanding, although express mention of the true yearly value or certainty of the premises, or any of them, or of any other gift or grants by us, or by any of our progenitors henceforth made to the said James, Duke of *York*, in these presents is not made, or any statute, act, ordinance, provision, proclamation or restriction heretofore had, made, enacted or provided, or any other matter, cause or thing whatsoever, to the contrary thereof in any wise notwithstanding. In witness whereof, we have caused these our letters to be made patents: witness ourself, at *Westminster*, the twenty-second day of *March*, in the thirty-fifth year of our Reign.

*Perhaps it ought to be *Incertainty*.

SANCTIFICATION OF THE SABBATH.

At a large and respectable meeting composed of different religious denominations, convened on Monday the 14th inst. in the 7th Presbyterian Church for the purpose of adopting measures to promote the sanctification of the Sabbath;

Robert Ralston, Esq. was called to the chair; and Alexander Henry, Esq. and Nicholas Murray appointed Secretaries.

The object of the meeting was stated in a short and appropriate address by the Rev. Ashbel Green, D. D.

The following resolution was offered by Thomas Bradford, Jr. Esq. and seconded by Dr. E. Griffiths.

Resolved, That this meeting cordially approve of the measures recently adopted by the convention of delegates of different religious denominations held in New York on the 6th of May last, for the purpose of promoting the better obse ance of the Christian Sabbath.

The following resolution was offered by the Rev. J. J. Janeway, D. D. and seconded by the Rev. Samuel Helfenstein.

Resolved, That it is expedient to form a State Branch, which shall be auxiliary to the General Union formed in New York, for promoting the observance of the Sabbath; and that a committee of four be appointed to prepare a form of a Constitution, and to nominate a Board of officers to be submitted to this meeting.

The Rev. Messrs. Janeway, Helfenstein, Dagg and T. Bradford, Jr. were appointed that committee.

The following resolution was offered by the Rev. J. L. Dagg, and seconded by the Rev. James Patterson.

Resolved, That a committee of three be appointed to have the proceedings of this meeting, signed by the chairman and secretaries, published in the daily papers; and also, to have them published in a pamphlet form, together with the address of the General Union, and distributed as extensively as possible; and also, to raise funds to carry this resolution into effect.

The Rev. G. R. Livingston, Rev. J. L. Dagg and Thomas Bradford, Jun. Esq. were appointed that committee.

The following resolution was offered by the Rev. G. R. Livingston, and seconded by Mr. F. Erringer.

Resolved, That a committee of three be appointed to ascertain whether any of the steam boats running on the regular lines between New York and Baltimore, will desist running at all on the Sabbath.

Messrs. Ralston, Henry and Murray were appointed that committee.

The following resolution was offered by Mr. John M'Mullin, and seconded by Mr. Joseph Montgomery.

Resolved, That the clergy of the different denominations of the city and vicinity, be, and they hereby are respectfully requested as soon as convenient, to deliver appropriate discourses to their congregations on the observance of the Holy Sabbath.

The following Constitution and Board of officers were reported by the committee to the meeting, and unanimously adopted.

CONSTITUTION.

ART I. This Society shall be called the Pennsylvania Branch, auxiliary to the General Union formed in New York city in 1828, for promoting the observance of the Christian Sabbath.

ART II. It shall consist indiscriminately of the friends of mo ality and religion *of all denominations*, who may choose to combine their influence for the promotion of this interesting object.

Art III. As the weapons of the Christian warfare are not carnal but spiritual, the means employed by this Society for effecting their design shall be exclusively the influence of personal example, of moral suasion, with arguments drawn from the oracles of God, from the existing laws of our country, and appeals to the consciences and hearts of men.

Art IV. This Branch shall hold its annual meeting at such time and place, as the directors may determine, when a Board consisting of a President, Vice Presidents, Recording and Corresponding Secretaries, a Treasurer and twenty-four Directors shall be chosen to conduct the business of the Society; three of whom shall constitute a quorum. In case of the failure of an annual election, the existing officers shall continue till a new election.

Art V. It shall be the duty of the Board to meet, at the call of the President, as often as shall be necessary for the transaction of business, to fill their own vacancies; to adopt energetic measures to accomplish the object of the General Union: and to make to this Branch an annual report of their proceedings.

Art VI. Any person may become a member of this Branch by subscribing the Constitution and signing the following pledge, viz.

We, whose names are undersigned, do hereby acknowledge our obligation to keep the Sabbath according to the Scriptures; and we pledge ourselves to each other, and to the Christian public, to refrain from all secular employments on that day, from travelling in steam boats, stages, canal boats, or otherwise, except in cases of necessity or mercy, and to aim at discharging the duties of that sacred day; and also that we will, as circumstances admit, encourage and give a preference to those lines of conveyances whose owners do not employ them on the Sabbath.

Art VII. This Constitution shall not be altered, except at an annual meeting, and by a vote of two thirds of the members present.

OFFICERS.

Robert Ralston, President.
Alexander Henry, Rev. G. R. Livingston } Vice Presidents,
Nicholas Murray, Recording Secretary.
Thomas Bradford, jr. esq. Cor. Sec'ry.
Frederick Erringer, Treasurer.

MANAGERS.

James Moore	A. G. Claxton
Dr. Griffiths	Duncan George
J. L. Inglis	Robert Wallace
Joseph P Engles	Rev. J. L. Dagg
Rev. James Patterson	Rev. S. Helffenstein
G. W. Mentz	Rev. M. Force
Nicholas Murray	Dr. B. R. Rhees
Joseph Montgomery	Rev. W. T. Brantly
Rev. John Chambers	John M'Mullin
Isaac Wampole	Rev. Peter Wolle
J. B. Mitchell	Ambrose White
Cornelius Stevenson	James Peters.

Interesting and appropriate addresses were delivered by the Rev. Dr. Green, Thomas Bradford, jr. esq. Rev. Dr. Janeway, Rev. Mr. Dagg, Rev. Mr. Patterson, Rev. Mr. Livingston, and others. A spirit of harmony and exertion pervaded the meeting, which, it is hoped, will extend itself through every part of Pennsylvania, and do much to rescue the Christian Sabbath from profanation.

Robert Ralston, *Chairman.*
Alexander Henry, Nicholas Murray } *Secretaries.*

WM. PENN AND ARCHBISHOP TILLOTSON.

William Penn, for his strict attachment to king James II. and the extraordinary favours received by him from that prince, had drawn upon himself the imputation of being a Papist, and even of a priest and Jesuit in disguise. And it had been commonly reported that Dr. Tillotson had given into the same opinion, and reported it to his prejudice. Upon which Mr. Penn wrote to him thus:

Worthy Friend,

Being often told that Dr. Tillotson should suspect me, and so report me a Papist, I think a Jesuit, and being closely pressed, I take the liberty to ask thee, if any such reflection fell from thee. If it did, I am sorry one I esteemed ever the first of his robe, should so undeservedly stain me, for so I call it: And if the story be false, I am sorry they should abuse Dr. Tillotson, as well as myself, without a cause. I add no more, but that I abhor two principles in religion, and pity them who own them: The first is, *Obedience upon authority without conviction;* and the other, *Destroying them that differ from me for God's sake.* Such a religion is without judgment, though not without teeth. *Union* is best, if right, else *charity*. And as Hooker said, "The time will come, when a few words spoken with meekness, and humility, and love, shall be more acceptable than volumes of controversies, which commonly destroy charity, the very best part of true religion." I mean not a charity that can change with all, but can bear all, as I can Dr. Tillotson, in what he dissents from me; and in this reflection too, if said, which is not yet believed by

Thy true Christian Friend,

W. PENN.

Charing-cross, 28th of the 11th month, 1685-6.

To which Dr. Tillotson returned the following answer:

January 26, 1685.

Honoured Sir—The demand of your letter is very just and reasonable, and the manner of it very kind; therefore, in answer to it be pleased to take the following account. The last time you did the favour to see me at my house, I did, according to the freedom I always use, where I profess my friendship, acquaint you with something I had heard of a correspondence you held with some at Rome, and particularly with some of the Jesuits there. At which time you seemed a little surprised; and after some general discourse about it, you said you would call upon me some other time, and speak farther of it. Since that time I never saw you but by accident and in passsge, where I thought you always declined me; particularly at Sir William Jones's chamber, which was the last time I think I saw you. Upon which occasion I took notice to him of your strangeness to me, and told him what I thought might be the reason of it and that I was sorry for it, because I had a particular esteem of your parts and temper.

The same, I believe, I have said to others; but to whom I do not so particularly remember. Since your going to Pennsylvania, I never thought of it, till lately being in some company, one of them pressed to declare, whether I had not heard something of you, which had satisfied me that you were a Papist. I answered, No, by no means. I told him what I had heard, and what I said to you, and of the strangeness that ensued upon it; but that this never went farther with me, than to make me suspect there was more in that report, which I have heard, than I was at first willing to believe; and if any made of it I should look upon them as very injurious both to Mr. Peen and myself. This is the truth of that matter; and whenever you will please to satisfy me that my suspicion of the truth of that report I had heard, was groundless, I will heartily beg your pardon for it. I do fully concur with you in the abhorrence of the two principles you mention, and your approbation of that excellent saying of Mr. Hooker's, for which I shall very highly esteem him. I have endeavoured to make it one of the governiug principles of my life, *never to abate any thing of humanity or charity to any man, for his difference from me in opinion;* and particularly to those of your persuasion, as several of them have had experience.

I have been ready on all occasions, to do all offices of kindness, being truly sorry to see them so hardly used; and, though I thought them mistaken, yet, in the main, I believed them to be very honest. I thank yon for your letter, and have a just esteem of the temper of it, and rest

Your faithful friend,

JOHN TILLOTSON.

—

This produced the following letter from Mr. Penn.

Worthy Friend,

Having a much less opinion of my own memory than of Dr. Tillotson's truth, I will allow the fact, though not the jealousy: for besides that I cannot look strange where I am well used, I have ever treated the name of Dr. Tillotson with another regard: I might be grave and full of my own business: I was also then disappointed by the doctor's; but my nature is not harsh, my education less, and my principles least of all. It was the opinion I had of the doctor's moderation, simplicity and integrity, rather than his parts or post, that always made me set a value upon his friendship; of which, perhaps, I am a better judge, leaving the latter to men of deep talents. I blame him nothing, but leave it to his better thoughts, if, in my affair, his jealousy was not too nimble for his charity. If he can believe me, I should hardly prevail with myself, to endure the same thought of Dr. Tillotson on the like occasion, and less to speak of it. For the Roman correspondence I will freely come to confession. I have not only no such thing with any Jesuit at Rome (though Protestants may have without offence) but I hold noue with any Jesuit, priest, or regular, in the world, of that communion. And that the doctor may see what a novice I am in that business, I know not one any where. And when all is said, I am a *Catholic* though not a *Roman*. I have bowels for mankind, and dare not deny others what I crave for myself, I mean *liberty*, for the exercise of my religion; thinking faith, piety, and providence, a better security than force; and that if truth cannot prevail with her own weapons, all others will fail her. Now, though I am not obliged to this defence, and that it can be no temporising now [in 1686] to make it; yet, that Dr. Tillotson may see how much I value his good opinion, and dare own the truth and myself at all times, let him be confident *I am no Roman Catholic;* but *a Christian whose creed is the Scripture;* of the truth of which I hold a nobler evidence, than the best church authority in this world; and yet I refuse not to believe the Porter, though I cannot leave the sense to his discretion; and when I should, if he offends against those plain methods of understanding God hath made us to know things by, and which are inseparable from us, I must beg his pardon, as I do the Doctor's for this length, upon the assurance he hath given me of his doing the like upon better information; which that he may fully have, I recommend to him my *Address to Protestants*, from page 133 to the end; and to the four first chapters of my *No Cross no Crown;* to say nothing of our most unceremonious and unwordly way of worship, and *their* pompous cult: where, at this time, I shall leave the business, with all due and sensible acknowledgements to thy friendly temper, and assurances of the sincere wishes and respects of

Thy affectionate and real friend,

W. PENN.

Charing-cross, 29th of the 11th month, 1686.

—

To which the Docter answered:

April 29, 1686.

Sir,—I am very sorry that the suspicion which I had entertained concerning you, of which I gave you the true account in my former letter, hath occasioned so much trouble and inconvenience to you: and I do now declare with great joy, that I am fully satisfied that there was no just ground for that suspicion, and therefore I do heartily beg your pardon for it. And ever since you were pleased to give me that satisfaction, I have taken all occasions to vindicate you in this matter; and shall be ready to do it to the person that sent you the enclosed, whenever he will please to come to me. I am very much in the country, but will seek the first opportunity to visit you at Charing-cross, and renew our acquaintance, in which I took great pleasure. I rest,

Your Faithful Friend,

JOHN TILLOTSON.

[*Penn. Mag.*

AUCTIONS.

In pursuance of a resolution adopted at a very numerous and respectable meeting of Merchants and Traders, held at Clement's Hotel, on the evenning of the 27th ult. a general meeting of merchants and others was convened at the District Court room on the evening of the 7th inst. at 8 o'clock.

THOMAS C. ROCKHILL was called to the Chair, and MATTHEW NEWKIRK and DAVID ELLMAKER were appointed Secretaries.

The following resolutions were submitted by the committee chosen at the former meeting, and unanimously approved off:

1st. Resolved, That in the opinion of this meeting, the existing system of sales by auction is a great and increasing evil, and highly injurious to the interests of every class of citizens throughout the Union.

2d. Resolved, That a committee, consisting of the following persons, be appointed on behalf of the citizens of Philadelphia, to co-operate with our fellow citizens elsewhere, in their exertions to correct the evils of auctions, and to pursue such measures as they may deem advisable for the accomplishment of this object, with power to supply any vacancies in their own body, viz:

Manuel Eyre,	Robert Earp,
Matthew L. Bevan,	Furman Leaming,
Ambrose White,	Robert Toland,
Matthew Newkirk,	David Ellmaker,
Jeremiah Brown,	R. M. Whitney,
Joshua Haven,	J. J. Borie, Jr.
B. M'Credy,	Aaron Kille,
A. Tessiere,	William Wurts,
Joseph Cabot,	William Rogers,
Richard Price,	James Fassitt,
Caleb Cope,	J. M. Vanharlingen,
Townsend Sharpless,	Thos. C. Rockhill.
J. M. Chapron,	

3d. Resolved, that a committee of three persons be appointed to prepare a memorial on this important subject to be presented to Congress at their ensuing session. Whereupon Joseph H. Dulles, J. J. Borie and Furman Leaming were appointed on said committee. who having withdrawn for a short time, reported a memorial, which was read and unanimously adopted.

4th. Resolved, that the proceedings of this meeting be published in the newspapers of this city, after which the meeting adjourned.

T. C. ROCKHILL, Chairman.

MATTHEW NEWKIRK, } Secretaries.
DAVID ELLMAKER, }

To the Senate and House of Representatives in Congress assembled.

The Memorial of the subscribers, citizens of Philadelphia,

Respectfully represent,

That the evils resulting from the system of auctions, as conducted in this country, are many and aggravated, and such as the General Government alone can remedy and prevent.

That the system, by which "licenses to sell to the highest bidder," are granted to a few persons, whose

wealth may purchase the privilege, or whose influence with a ruling party may procure it, while all others are prohibited from selling their property in this manner—is an infringement of the liberties of the citizen.

That a system created by local laws, and by means of which the great mass of merchandize is made in the course of trade, to pass through the hands of a few men, who thereby acquire great wealth in a short time—is a *monopoly* inconsistent with the principles of our government.

That the profound secresy with which the vender is concealed, through the agency of auctions, encourages fraud in numberless forms, and the established time beyond which there is no redress, (limited to one day, or at most but three days,) secures generally to the deceivers the gain of any cheat which may be undetected in that short period. Fraudulent debtors, under cover of this system, securely practice the arts of the swindler. Stolen property is thus easily and safely converted into ready money; and the temptation has in frequent instances led the heedless youth to rob his employer, and thus raise the means of guilty indulgence. The smuggler finds this secret system, a ready avenue, by which to reap the profits of those frauds which he is practising upon the revenue.

That foreign speculators and manufacturers allured by the temptations of auctions, the long credits on duties, and frequent success in adventures, have poured their surplus goods into the United States, thereby creating such fluctuations in trade as to drive from it almost all but those who are under their own peculiar circumstances.

That the American importer, being thereby removed from the trade, the profit arising from the importing business is transferred from the American citizen, and is deducted from the wealth of the nation; and all the prosperous industry which would arise from the diffusion of so great an amount through society, in the employment of mechanics, the renting of houses, the consumption of the products of the earth, &c. is lost.

That the credits on duties designed to encourage the American merchant, when industry, enterprise, and honesty formed his chief capital, have become a perpetual fund without interest, in the hands of the foreigner, to the manifest injury of those for whose benefit they were granted.

That the incessant fluctuations thus created are at once injurious to commerce, destructive to public morals, and ruinous to individuals—the monopolist alone being enriched amid the general calamity.

That the prices of merchandize are increased, inasmuch as the profits of the importer and auctioneer, together with the state duties, are added to the gains of the former importer, who still remains a necessary link in the trade of the country, and must be supported by a charge upon his sales. The price is also increased in the absence of the competition of many importers, the trade being in the hand of a few foreign agents, by whom in times of scarcity the most exorbitant profits are realized.

Believing that the positions here assumed, can at the proper time be clearly proved, and that inferences from them deeply involving the interests of every class of the community are fairly deducible, we appeal to those to whom is entrusted the welfare of our common country, and pray that they may take such measures as shall in their judgment most effectually protect our citizens against the operations of a system, fatal alike to the virtue and prosperity of the community.

MAUCH CHUNK.

It was in July 1825, when I last visited Mauch Chunk. Having heard much of the improvements since made there, and especially of the rail-road, I determined to take the opportunity of my journey to Wilkesbarre, again to see this interesting place. Lowrytown, an appendage to the works at Mauch Chunk, is situate 15 miles further up the Lehigh river. Its location is in the midst of the Great Pine Swamp. There is not, probably in the whole extent of country, south of the lakes, and east of the Allegheny mountains, a place remaining so wild, secluded and romantic. On Thursday morning, July the 10th, I mounted my horse at Porter's excellent Hotel, in Wilkesbarre, and directed my way from the charming valley of Wyoming, through Solomon's Gap to Lowrytown. Attracted by the new merchant mill of Gen. Ross, stopped half an hour to examine it. The high perfection attained by American Millwrights, in the construction of machinery for the manufacture of flour, is a source of admiration and pride. The whole labour is done by machinery; the wheat carried into the loft, thoroughly cleansed, and conveyed to the hopper; the flour, by elevators, returned to the loft, stirred, cooled, bolted, and with little labour packed in the barrels ready for market. Pennsylvania abounds in fine mills. Perhaps there is not, in the world, so great a number, so perfect in machinery as in our state. The mill of Gen. Ross is among the noblest, neatest finished, and best it has been our lot to visit. A sufficient stream giving him a fall of thirty feet, affords him power, with two pair of burr, and one pair of country stones, for extensive operations. Bergstresser was his millwright—a German, distinguished for the neatness, accuracy and strength of his work, and for some valuable improvements in the arrangement of the cog-wheels, lessening essentially the friction. The cost of the mill was understood to be 13,000 dollars. From Wilkesbarre to Lowrytown, the road passes over rocky monntains, and deep glens of thick pine and hemlock woods.

Two miles from Lowrytown, there is a large opening, apparently of some miles in extent, said to be an old Indian clearing, but is probably the effect of a windfall and repeated fires which have prevented the timber from growing. Evening was approaching and rabbits innumerable played and sported in my path for a long distance, so tame as scarcely to leave the road as I rode by them. At six I arrived at the upper houses in Lowrytown. Fifteen or twenty neat log buildings are erected on a piece of flat land on the top of Lehigh mountains; and are occupied by persons who are engaged in getting in logs for the saw mills. The purpose of the settlement and works at this place, is to prepare timber for boats to take coal from Mauch Chunk to Philadelphia. Having been so directed, I inquired for the habitation of Mr. Irish, superintendant of the works at this place, and turning to the right, descended a steep hill into a narrow glen, through which Laurel run finds its way to the Lehigh. The hills rise abruptly more than two hundred feet high, and it cannot much exceed that distance from the top of one hill to the top of the other. A place so wild and rude is rarely to be found even in the Great Swamp, which nature seems to have intended for an eternal solitude. But the enterprise of man has made even this place lively by his labour, and pleasant from the conviction of the public utility and private prosperity springing from the operations here carried on. A road between a row of houses and stables near the creek leads to two saw mills on the margin of the river. A stone mill and large store, containing goods to the value of more than 10,000 dollars, indicate the business transacted here. Provisions are brought from Luzerne county and notwithstanding the roughness of the road, a brisk trade is kept up between this place and Wilkesbarre. A wagon going in was taking barrels of mackerel from Lowrytown, the driver saying they could be obtained as cheap by that route as any other.

The accommodations at the house of Mr. Irish were very comfortable. The chamber and beds were so neat they would be in the best mansion in the city, a perfect luxury; and if I could give a receipt for the baked Indian pudding* we had for dinner, I am sure all good

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* *Receipt.*—Scald two quarts of skim milk, stir in one pint of Indian meal, or enough to make very thin mush, add a little salt—a tea-cup full of molasses, a great spoon-

housewives would thank me for learning them to make a dish so simple, economical, and truly excellent.

There are four saw mills at this place, two of them running two saws each, and of the most powerful construction. One set of hands work from 12 at night to 12 at noon—another, the other 12 hours, so that the mills run day and night. The mountains of the Lehigh are high and precipitous. Logs are hauled to the summit and projected in shutes or troughs to the river. To see the logs descend endwise 700 feet, passing with the rapidity of an arrow, plunging into the deep water, throwing aloft a volume of foam and spray—one log following another in quick succession, was a sight interesting; I might say, combined with the mountain scenery, the expanse and depth of forest, the shouts of the woodsmen, and the flight of the sacred eagle, was exciting and sublime.

The largest pine cut this season, was lying on the mountain brink. Its size exceeded that of any tree I recollect to have seen. There were three logs of seventeen feet each, before it reached the point where it separated into branches or prongs, and from each prong three logs were obtained of fifteen feet each, making nine logs. The butt measured four feet five inches one way, and four feet another way—not being exactly round. A calculation made on the spot, gave 9000 feet as the quantity of boards the tree would produce; so that in Philadelphia it would be worth, in sawed lumber more than one hundred dollars. See the effect of human labour, skill and internal navigation. The difference in the value of this single tree, in the forest and at market, speaks powerfully in favor of making the intercommunication between different parts of the country perfect as possible. Only open a way for the productions of the soil to market, and for every dollar expended, you add twenty to the public stock of wealth. I counted with what accuracy I could, the rings from the centre, marking the age of the old pine, and found them to be nearly 260, so that it must have commenced its growth with Shakspeare, about 1560 or 70, and lived in days of "Good Queen Bess."

But the horn sounds. The rafts are about to set off down the river for Mauch Chunk. Having sent my horse through the wilderness path by a boy hired for the purpose, precisely at 1 o'clock P. M. we pushed from the shore at Lowrytown, two rafts being in company. The lever was moved, the gates of the dam descended, the water rushed through the sluice way, and we shot down the steep descent on the foaming billows, not without a deeper ducking than was altogether desirable by a mere passenger. When ladies go down, a box is prepared to save them from the waves. On the artificial fresh we floated along finely, sometimes running ahead of it, and having to wait for it to come on. The scenery along the Lehigh is extremely wild. The hills the whole way rise steeply from the margin of the river several hundred feet and are crowned by forests of mighty pines shutting out the sun except at "high twelve." Deer are often seen on the banks—bear sometimes and rattle snakes are not unfrequently killed in the eddies swimming the river. At the Hatchel-teeth Falls, the fresh having been dissipated by the distance run, our raft ran upon a rock. The hardy raftmen spring in, the water coming waist high, pushed her off, and went on without a murmur or an oath. Just at dusk the village of Mauch Chunk and its wonderful works opened to eye.—*Vil. Rec.*

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ful of ginger—or a little of any other spice you like. Put it in a tin or earthen pan, and bake it in the oven three hours. It eats well without, but better with a lump of butter, and is a luxury superior to rice or custard.

ANECDOTE OF BENJAMIN LAY.

On Monday about noon, being in the time of the general meeting of friends, Benjamin Lay, the Pythagorian cynical Christian philosopher, bore a public testimony against the vanity of tea drinking, by devoting to destruction in the market place, a large parcel of valuable china, &c. belonging to his deceased wife. He mounted a stall on which he had placed the box of ware; and when the people were gathered around him, began to break it piecemeal with a hammer, but was interrupted by the populace, who overthrew him and his box to the ground, and scrambling for the sacrifice, carried off as much of it as they could get. Several would have purchased the china of him before he attempted to destroy it, but he refused to take any price for it. *Penn. Gaz. March* 25, 1742.

At a celebration of the 4th of July in Meansville, Bradford county, Pa. the Declaration of Independence was read by Colonel Franklin, now about 80 years of age, in a strong and impressive manner—after which he delivered, extemporarily, the following short address:

"*Friends and fellow citizens*:—

"You see before you a frail remnant of one of those who have faced the British cannon, and heard the still more appalling yell of the painted savage at the horrible massacre of Wyoming. We gained for you the liberty you have enjoyed for more than half a century. In all human probability this is the last time our faultering tongues will ever tell to you on an anniversary of freedom the story of our sufferings. May the Almighty strengthen you with virtue to defend your inheritance against foreign invasion, as well as against domestic intrigue and military usurpation.

FREEDOM OF THE PRESS.

"At a Council at Philadelphia, February 1st, 1725, the Board being informed that Andrew Bradford, the printer, attended according to order, he was called in and examined concerning a late pamphlet entitled, 'Some remedies proposed for restoring the sunk credit of the Province of Pennsylvania.' Whereupon he declared that he knew nothing of the printing or publishing the said pamphlet: and being reprimanded by the Governor for publishing a certain paragraph in his newspaper called the American Weekly Mercury, of the 2d of January last, he said it was inserted by his journeymen who composed the said paper, without his knowledge, and that he was very sorry for it, and for which he humbly submitted himself, and asked pardon of the Governor and the Board; Whereupon the Governor told him, that he must not for the future presume to publish any thing relating to or concerning the affairs of this government, or the government of any other of his Majesty's Colonies, without the permission of the Governor or Secretary of this Province for the time being. And then he was dismissed."

[*Minutes of Council.*

LARGE POPLAR.

A poplar tree was cut down in Berks county in 1827, near Lewis's ferry. It was 117 feet in height, and 64 from the butt to the first branch, and its greatest circumference 20 feet 7 inches—perfectly sound, and from the concentric circles at the end of the trunk, it was estimated to be 300 years old. Gave 22 cords of wood.

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